



VIRGINIA DEPARTMENT OF
SOCIAL SERVICES



Assisted Living Facility COVID-19 Webinar Series

Episode Two: COVID-19 Testing Update

April 29, 2021

12:00 p.m.–1:00 p.m.

Agenda

12:00 – 12:02: Welcome

12:02 – 12:15: CDC Guidance Update and Brief Q&A

Dr. Rehab Abdelfattah, MD, MPH, CIC; VDH Healthcare-Associated Infections (HAI) Team

Lisa Sollot; VDH Healthcare-Associated Infections (HAI) Team

12:15 – 12:45: COVID-19 Testing Update

Dr. Brooke Rossheim, MD, MPH; VDH COVID-19 Testing Team

12:45 – 1:00: COVID-19 Testing Update Q&A

Updates to Infection Control and Prevention Best Practices in ALFs

VDSS/VDH COVID-19 Lunch & Learn Webinar Series

April 29, 2021

Travel Updates- Domestic Travel

Domestic Travel Recommendations and Requirements	Not Vaccinated	<u>Fully</u> <u>Vaccinated</u>
Get tested 1-3 days before travel	✓	
Get tested 3-5 days after travel and self-quarantine for 7 days. Self-quarantine for 10 days if you don't get tested.	✓	
Self-monitor for symptoms	✓	✓
Wear a mask and take other precautions during travel	✓	✓

Travel Updates- International Travel

International Travel Recommendations and Requirements	Not Vaccinated	<u>Fully Vaccinated</u>
Get tested 1-3 days before traveling out of the US	✓	
Mandatory test required before flying to US	✓	✓
Get tested 3-5 days after travel	✓	✓
Self-quarantine after travel for 7 days with a negative test or 10 days without test	✓	
Self-monitor for symptoms	✓	✓
Wear a mask and take other precautions during travel	✓	✓

Updated IPC Guidance

- On March 29, 2021, CDC released new guidance for LTCFs, Interim Infection Prevention and Control Recommendations to Prevent SARS-CoV-2 Spread in Nursing Homes, found [here](#).
- VDH recommends Virginia facilities follow the new CDC guidance, which supplements the CDC's Interim Infection Prevention and Control (IPC) Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic, found [here](#).
- The guidance is specific for nursing homes, including skilled nursing facilities, and may also apply to other long-term care and residential settings

Updated IPC Guidance, cont.

- As nursing homes resume normal practices and begin relaxing restrictions, nursing homes must sustain core IPC practices and remain vigilant for SARS-CoV-2 infection among residents and HCP in order to prevent spread and protect residents and HCP from severe infections, hospitalizations, and death.
- Unless noted in the [Updated Healthcare Infection Prevention and Control Recommendations in Response to COVID-19 Vaccination](#), this guidance applies regardless of vaccination status and level of vaccination coverage in the facility.

Updated IPC Guidance, cont.

- Assign one or more individuals with training in IPC to provide onsite management of the IPC Program.
- This should be a full-time role for at least one person in facilities that have more than 100 residents or that provide onsite ventilator or hemodialysis services.
- Smaller facilities should consider staffing the IPC program based on the resident population and facility service needs identified in the IPC risk assessment.

Updated IPC Guidance, cont.

The following activities can be considered for residents who do **not** have current suspected or confirmed SARS-CoV-2 infection, and residents who have not had close contact with a person with SARS-CoV-2 infection:

1. Communal dining and group activities at the facility
2. Social activities outside the facility (avoid crowds and poorly ventilated spaces)
 - a. Residents should inform the facility if they have close contact with a person with SARS-CoV-2 infection while outside the facility

Social distancing, face mask and frequent HH should still be performed during these activities.

Updated IPC Guidance, cont.

Provided that unvaccinated people are from a single household that does not have individuals at risk of severe COVID-19, they can visit with fully vaccinated people indoors, without anyone wearing masks, with a low risk of SARS-CoV-2 transmission.

For example, fully vaccinated grandparents can visit indoors with their unvaccinated healthy daughter and her healthy children without wearing masks or physical distancing, provided none of the unvaccinated family members are at risk of a severe COVID-19 infection.

Updated IPC Guidance, cont.

New admission/Readmission:

- In general, all new admissions and readmissions should be placed in a 14-day quarantine, even if they have a negative test upon admission.
- Residents with confirmed SARS-CoV-2 infection who have not met criteria for discontinuation of Transmission-Based Precautions should be placed in the designated COVID-19 care unit.
 - Exceptions include:
 - Residents within 3 months of a positive SARS-CoV-2 test or infection
 - Fully vaccinated residents who are asymptomatic and have not had prolonged close contact with someone infected with SARS-CoV-2 in the past 14 days.

Updated IPC Guidance, cont.

Residents who leave the facility on regular basis:

- In most circumstances, quarantine is not recommended for residents who leave the facility for less than 24 hours and do not have close contact with someone with SARS-CoV-2 infection.
- Facilities might consider quarantining residents who leave the facility if, based on an assessment of risk, uncertainty exists about their adherence or the adherence of those around them to recommended IPC measures.
- Residents who leave the facility for 24 hours or longer should be managed as described in the New Admission and Readmission section.

Updated IPC Guidance, cont.

Manage Residents with Suspected or Confirmed SARS-CoV-2 Infection

- Ideally any resident with suspected SARS-CoV-2 infection should be moved to a single-person room with a private bathroom, and the door to the room remain closed, while test results are pending.
- However, in some circumstances (e.g., memory care units), keeping the door closed may pose resident safety risks and the door might need to remain open. So if doors must remain open, facility engineers shall implement strategies to minimize airflow into the hallway.

Updated IPC Guidance, cont.

Considerations for Residents and HCP who are within 3 months of prior infection:

- CDC currently recommends that asymptomatic residents who have recovered AND are within 3 months of a positive test for SARS-CoV-2 infection may not need to be quarantined or tested following re-exposure to someone with SARS-CoV-2 infection.
- However, exceptions apply in some clinical scenarios.

Updated IPC Guidance, cont.

Highlights from updated CDC “Strategies for Optimizing the Supply of N95 Respirators”, Apr. 9, 2021 <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html>

- CDC acknowledged that the supply and availability of NIOSH-approved respirators have increased
- Once personal protective equipment (PPE) supplies and availability return to normal, healthcare facilities should promptly resume conventional practices.
- Conventional capacity (normal use, in the face of a potential N95 respiratory shortage) updates:
 - Extended use of N95 respirators as source control
 - Added language on the use of respirators with exhalation valves
- Contingency capacity (expected shortage) updates:
 - Added a strategy to prioritize respirators for HCP who are using them as PPE over those HCP who are only using them for source control
 - For extended use of N95 respirators as PPE, clarified that N95 respirators should be discarded immediately after being removed

Updated IPC Guidance, cont.

- Crisis capacity (known shortage) updates:
 - Removed strategy of using non-NIOSH approved respirators developed by manufacturers who are not NIOSH-approved holders
 - Highlighted that the number of reuses should be limited to no more than five uses (five donnings) per device by the same HCP to ensure an adequate respirator performance
 - Removed decontamination of respirators as a strategy with limited re-use

Updated CDC Guidance (April 27, 2021)

CDC Healthcare Infection Prevention and Control Recommendations in Response to COVID-19 Vaccination: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-after-vaccination.html>

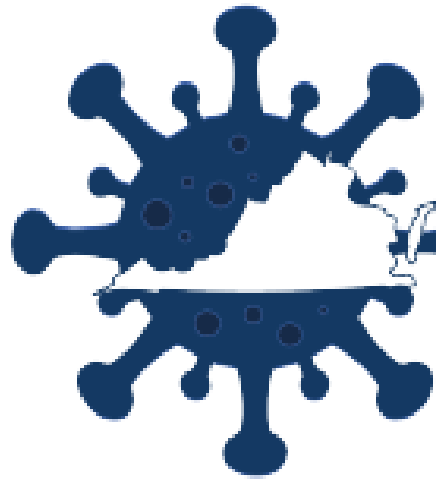
- Updated SARS-CoV-2 testing recommendations
- Updated visitation guidance to include recommendations for acute care facilities and to describe circumstances when source control and physical distancing are not required during visitation
- Added guidance for communal activities and dining in healthcare settings
- VDH is reviewing these updated recommendations and will be updating our guidelines accordingly.

Questions?

Contact the HAI Team:

<https://www.vdh.virginia.gov/haiar/contact/>

Email: HAI@vdh.virginia.gov



**VIRGINIA'S
HEALTH
IS IN YOUR
HANDS.**

Do your part,
stop the spread.

COVID-19 Testing Update

April 29, 2021

Key Pandemic Data as of April 29, 2021

Total Cases*		Total Hospitalizations**		Total Deaths	
658,341		28,351		10,751	
Confirmed†	Probable†	Confirmed†	Probable†	Confirmed†	Probable†
511,783	146,558	26,865	1,486	9,036	1,715

Select Measure
(Affects Map and Bar Chart)

- ☒ Cases
- ☐ Hospitalizations
- ☐ Deaths

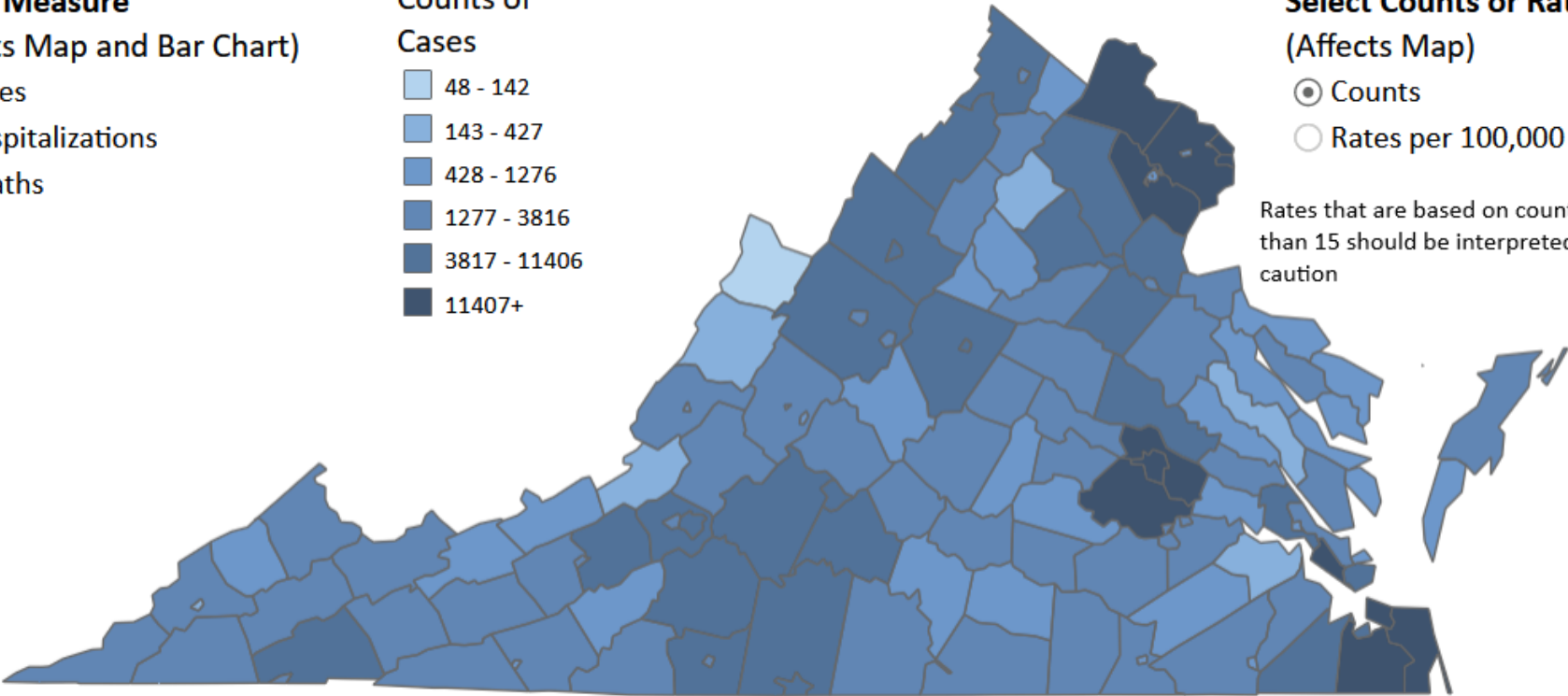
Counts of Cases

- 48 - 142
- 143 - 427
- 428 - 1276
- 1277 - 3816
- 3817 - 11406
- 11407+

Select Counts or Rates
(Affects Map)

- ☒ Counts
- ☐ Rates per 100,000

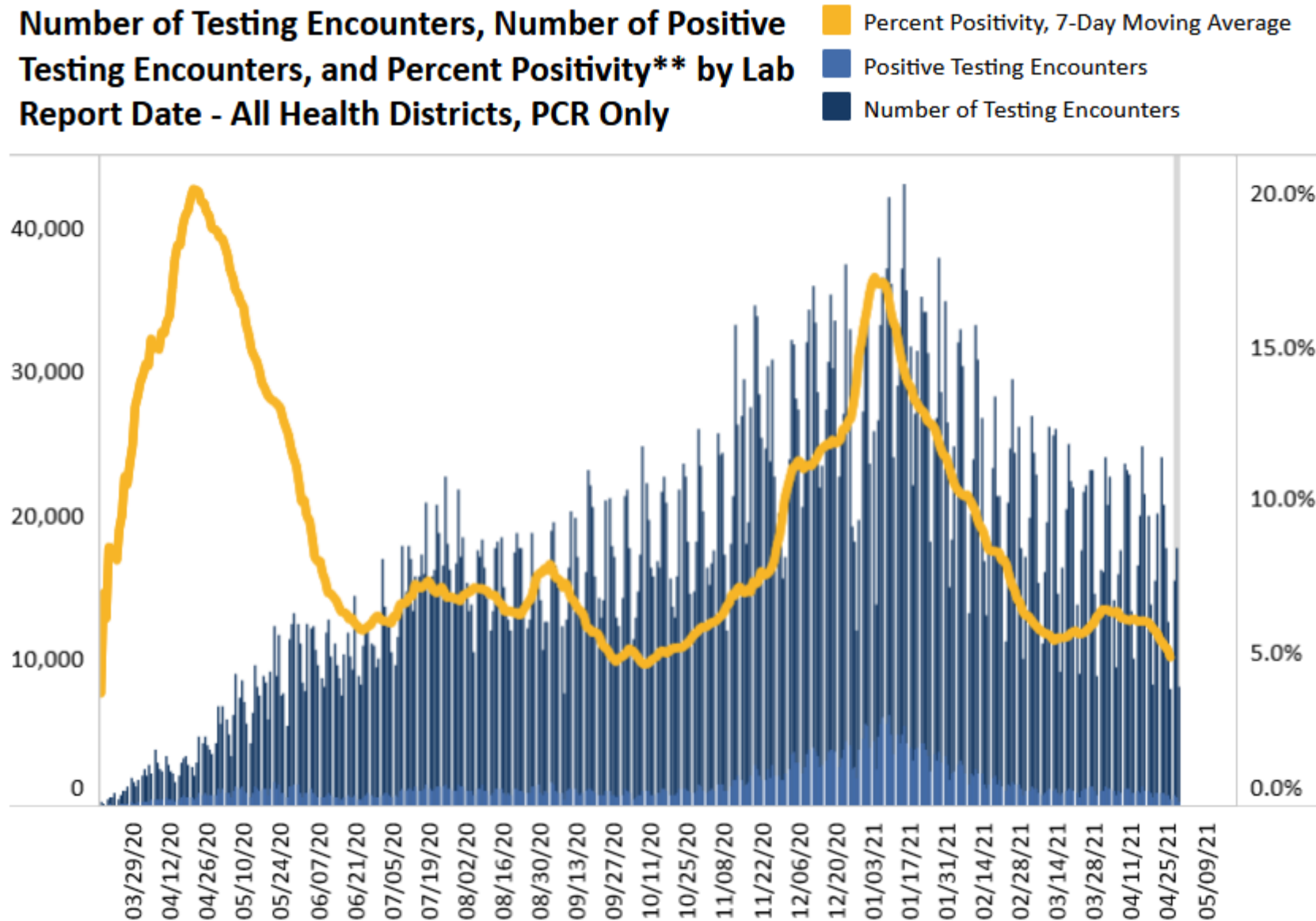
Rates that are based on counts less than 15 should be interpreted with caution



Source:
<https://www.vdh.virginia.gov/coronavirus/coronavirus/covid-19-in-virginia-cases/>

Statewide View: PCR Positivity Rate as of April 29, 2021

Number of Testing Encounters, Number of Positive Testing Encounters, and Percent Positivity** by Lab Report Date - All Health Districts, PCR Only



Current 7-day PCR positivity rate = 4.9%

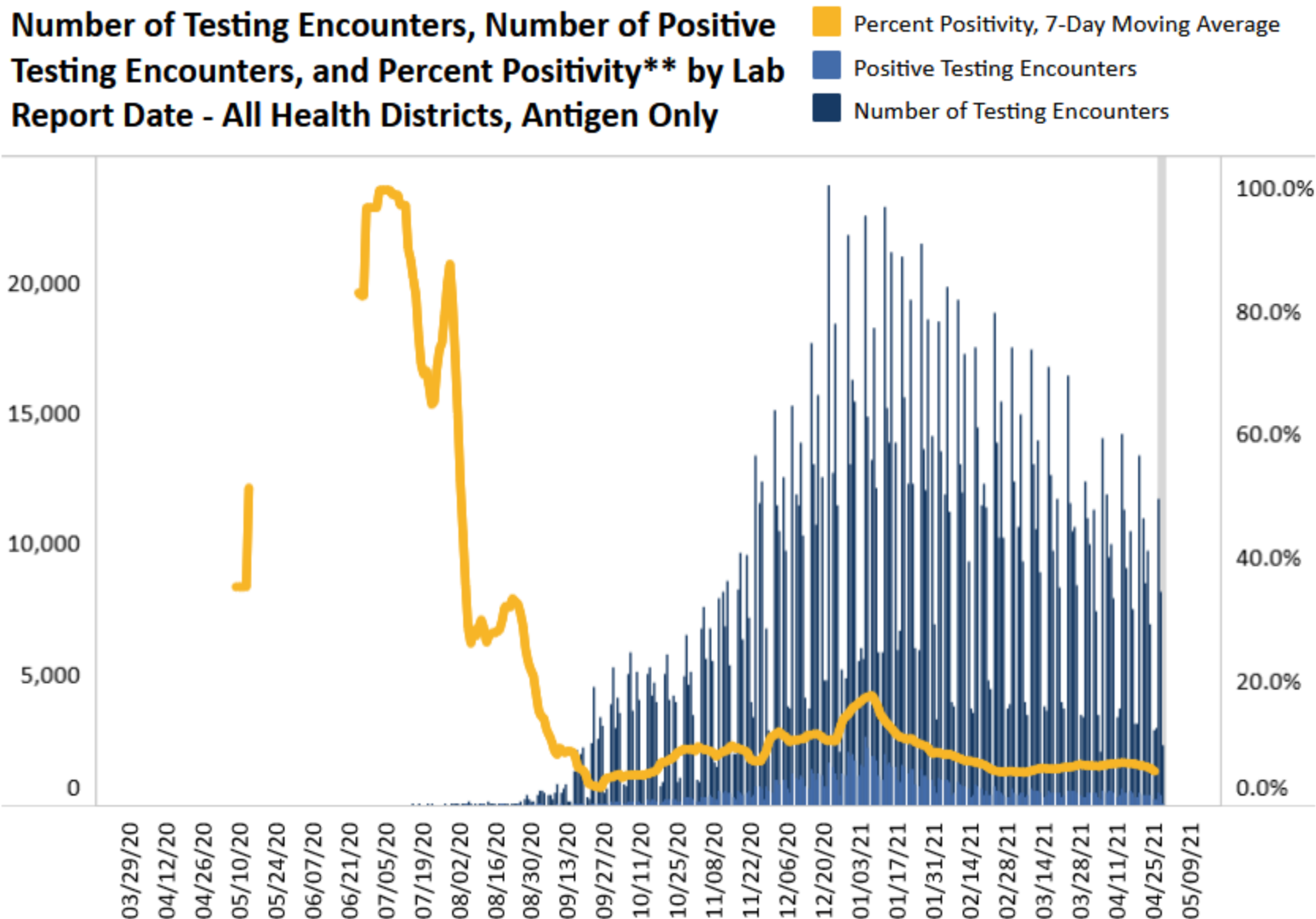
Comparison:
5.8% as of 3/9/21
11.7% as of 2/1/21

All Health Districts

<https://www.vdh.virginia.gov/coronavirus/coronavirus/covid-19-in-virginia-testing/>

Statewide View: Antigen Positivity Rate as of April 29, 2021

Number of Testing Encounters, Number of Positive Testing Encounters, and Percent Positivity** by Lab Report Date - All Health Districts, Antigen Only



Current 7-day antigen positivity rate = 5.6%

Comparison:
5.8% as of 3/9/21
9.9% as of 2/1/21

All Health Districts

<https://www.vdh.virginia.gov/coronavirus/coronavirus/covid-19-in-virginia-testing/>

Types of COVID-19 Tests

Covid-19 Molecular tests (example: PCR testing)

- Used to diagnose current Covid-19 infections – typically a nasal swab is collected as specimen
- Test detects genetic material from the virus itself
- Two basic types of molecular testing = swabs sent to lab company OR point-of-care test

Covid-19 Antigen tests (example: Abbott BinaxNOW Covid-19 Antigen Card)

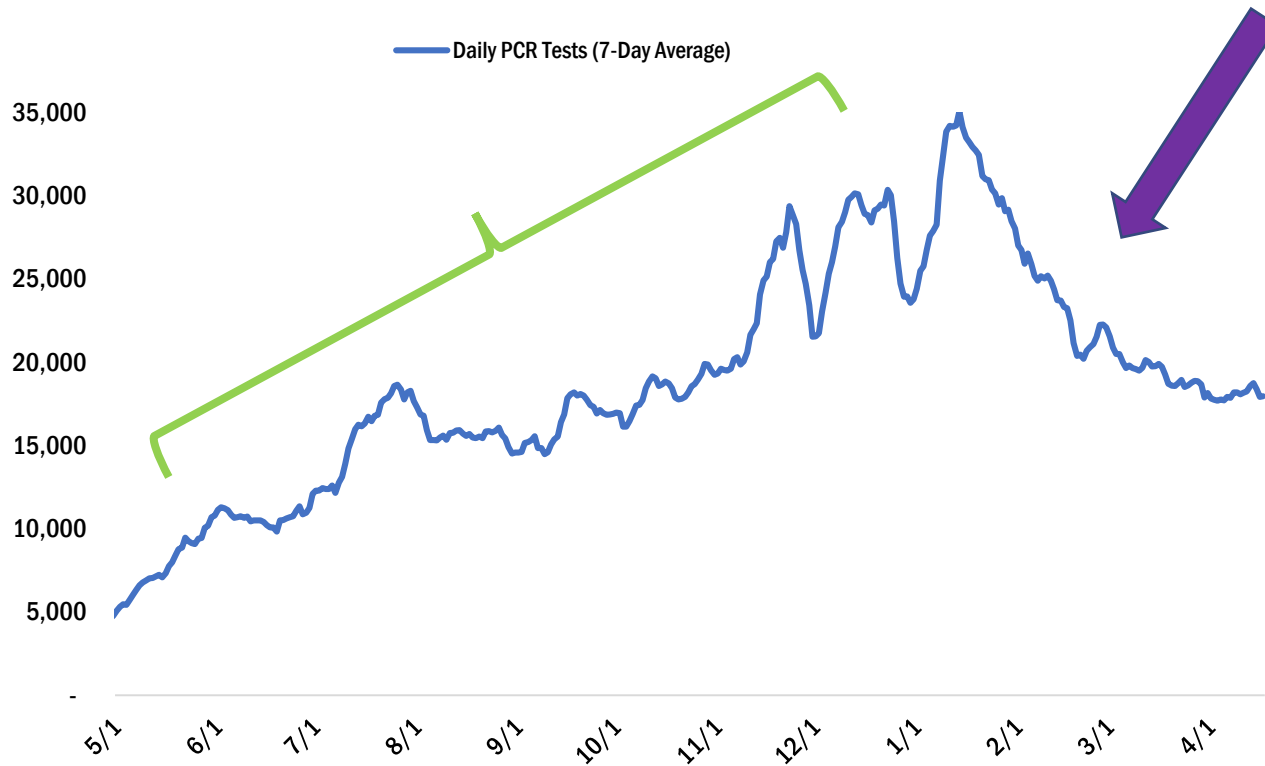
- Also used to diagnose current Covid-19 infections – nasal swab typically obtained as specimen
- Test detects whether a SARS-CoV-2 viral protein is present or not
- Most antigen tests are point-of-care; a few are meant to be sent to an outside lab
- Point of care tests provide results in 10-15 minutes, depending on the test

Covid-19 antibody tests (also referred to as serology tests)

- A blood test that looks for antibodies to the SARS-CoV-2 virus – if antibodies are present, it MAY indicate PAST infection with Covid-19
- Antibody test NOT designed to diagnose current Covid-19
- HOWEVER, some important caveats: (1) cross reactivity with other coronaviruses, (2) if antibody test is positive, does not indicate duration of immunity

COVID-19 Tests Conducted in Virginia

PCR Tests in Virginia – May 2020 through April 2021



- Data as of 4/21/2021
- Sharp increase in Covid-19 testing starting in April/May 2020 (see green bracket)
- At end of Dec 2020 / early Jan 2021, Virginia doing 50,000 total tests (PCR and antigen) or more daily
- Number of Covid-19 tests done has been steadily declining since early Jan 2021 (see purple arrow)
- Now, about 25,000 tests done per day total (both PCR and antigen)

Why Covid-19 testing is important

- **Testing is still needed** even though vaccines are currently available
- **Less disease transmission.** About 40-50% of people with Covid-19 have no symptoms, therefore, testing identifies these asymptomatic cases. These people can be advised to isolate and contact tracing can be done. Result = slows disease transmission
- **Testing allows pandemic to be tracked** = very important = how much disease is present, where it is, who gets illness. By tracking the pandemic, can focus response better.
- **Testing identifies variant viruses** – if test is positive, can obtain swab from person to do whole genome sequencing

COVID-19 Testing Focus Area Considerations

- People in areas that have **high ongoing community spread**
- People in areas with **higher numbers of vulnerable populations**
- People with **difficulty accessing testing**
- **Historically black colleges and universities**
- People with **medical co-morbidities**

Groups Where Antigen Testing is Useful

- People with **symptoms consistent with COVID-19**
 - **Asymptomatic people who are close contacts** to individuals with known or suspected COVID-19
 - **Asymptomatic people working in a high-risk setting**
 - **Asymptomatic people with no known contact with a COVID-19 positive person**
-

Useful CDC Document

SARS-CoV-2 Antigen Testing in Long Term Care Facilities

Considerations for Use in Nursing Homes and other Long-Term Care Facilities

Updated Jan. 7, 2021 [Print](#)

See <https://www.cdc.gov/coronavirus/2019-ncov/hcp/nursing-homes-antigen-testing.html>

New over-the-counter (OTC) at-home antigen tests



Over-the-counter COVID-19 rapid tests to be sent to major pharmacies this week

1 day ago



Store shelves at pharmacies across the county will soon be filled with affordable, quick, at-home [coronavirus](#) test kits.

Non-prescription Covid-19 antigen tests

- Most are meant for serial antigen testing, except for Ellume test
- Serial antigen testing = each kit contains 2 antigen tests – instructions are to test self twice over 2-3 days with an interval of 24-36 hours between tests
- Details regarding testing vary by test manufacturer
- Person obtains specimen (swab inside of nostril) and performs tests themselves, or for a child
- Some tests use a telehealth proctor or supervisor via a smartphone; some do not
- Abbott test: results in 15 minutes; Quidel test: results in 10 minutes
- For more info about Abbott tests, see <https://www.abbott.com/BinaxNOW-Test-NAVICA-App.html>
- For more information about Quidel test, see <https://quickvueathome.com/>
- For more information about Ellume test, see www.ellumehealth.com

Non-prescription at-home Covid-19 antigen tests

Manufacturer	Test brand name	Date of original FDA EUA	Type of test	Rx or non-Rx test	What type of sample needs to be collected	Age range for test	Link to most recent FDA EUA letter	Test indication	Can test be mailed to person's home?	Notes or comments
Abbott Diagnostics Scarborough Inc.	BinaxNOW COVID-19 Antigen Self Test	4/1/2021	serial antigen testing	non-Rx	anterior nares swab	age ≥ 2	www.fda.gov/media/147251/download	with or without Covid-19 symptoms or epi reason to suspect Covid-19	yes	test available from CVS pharmacy or online at www.cvs.com
Quidel Corp.	QuickVue At-Home OTC COVID-19 Test	3/31/2021	serial antigen testing	non-Rx	anterior nares swab	age ≥ 2	www.fda.gov/media/147247/download	with or without Covid-19 symptoms or epi reason to suspect Covid-19	?	results in 10 minutes
Abbott Diagnostics Scarborough Inc.	BinaxNOW COVID-19 Ag Card 2 Home Test	3/31/2021	serial antigen testing	non-Rx	anterior nares swab	age ≥ 2	www.fda.gov/media/147256/download	with or without Covid-19 symptoms or epi reason to suspect Covid-19	yes	Test available from www.emed.com . Test uses telehealth proctor. Must have a smart device or computer.
Ellume Limited	Ellume COVID-19 Home Test	12/15/2020	antigen	non-Rx	mid nasal turbinate swab	age ≥ 2	www.fda.gov/media/144457/download	with or without Covid-19 symptoms or epi reason to suspect Covid-19	yes	First non-Rx antigen test that provides results at home. Available at CVS Pharmacy or www.cvs.com

Non-prescription at-home molecular tests

Manufacturer	Test brand name	Date of original FDA EUA	Type of test	Rx or non-Rx test	What type of sample needs to be collected	Age range for test	Link to most recent FDA EUA letter	Test indication	Can test be mailed to person's home?	Notes or comments
Lucira Health Inc.	Lucira CHECK-IT COVID-19 Test Kit	4/9/2021	molecular	non-Rx	anterior nasal turbinate swab	age ≥ 2	www.fda.gov/media/147492/download	with or without Covid-19 symptoms or epi reason to suspect Covid-19	yes	Test available from www.lucirahealth.com online. Smartphone or smart device not needed for test.
Cue Health Inc.	Cue COVID-19 Test for Home and Over the Counter (OTC) Use	3/5/2021	molecular	non-Rx	anterior nares swab	age ≥ 2	www.fda.gov/media/146467/download	with or without Covid-19 symptoms or epi reason to suspect Covid-19	?	A home PCR test. Smartphone is needed to download app and use test. Need to see list of compatible smartphones (www.cuehealth.com). Result in about 20 min.

- One test (Lucira) does not require a smart phone or smart device
- Cue Health test does require smartphone / smart device
- Both provide results in about 20-30 minutes

Terms in epidemiology and abbreviations

- Sensitivity = among people with illness, what % of them have a positive test (want high %)
- Specificity = among people without illness, what % of them have a negative test (want high %)
- Sx = symptomatic = people with symptoms
- Asx = asymptomatic = people without symptoms

Antigen Test Performance - 1

Pollock NR, Jacobs JR et al. In preprint. Accessed at <https://doi.org/10.1101/2021.01.09.21249499>. Posted 1/12/2021.

-Community testing in Massachusetts, both adults and children, both sx and asx, used BinaxNOW Covid-19 Ag Card, PCR used as reference standard, anterior nasal swabs used for antigen and PCR testing, N=2308

-Results:

All (sx and asx, N=2308):	sensitivity 77.4%	specificity 99.4%
Adults (sx, N=355):	sensitivity 96.5%	specificity 100%
Adults (asx, N=974):	sensitivity 70.2%	specificity 99.6%

Antigen Test Performance - 2

Pray IW, Ford L et al. MMWR 2021;69:1642-1647. Accessed at <http://dx.doi.org/10.15585/mmwr.mm695152a3>. January 1, 2021.

-Testing at two university campuses in Wisconsin, 90% college-aged participants, both sx and asx, used Quidel Sofia POC antigen test, PCR used as reference standard, mid-turbinate nasal swabs used for antigen and PCR testing, N=1098

-Results:

Adults (sx, n=227):	sensitivity 80%	specificity 98.9%
Adults (asx, n=871):	sensitivity 41.2%	specificity 98.4%

Antigen Test Performance - 3

Prince-Guerra JL, Almendares O et al. MMWR 2021;70:100-105. Accessed at <http://dx.doi.org/10.15585/mmwr.mm7003e3>. January 19, 2021.

-Community testing in Pima County, Arizona over two weeks, 93% adults and 7% children, both sx and asx, used BinaxNOW Covid-19 Ag Card, PCR used as reference standard, anterior nares swab for Ag test; NP swab for PCR, N=3419

-Results:

All (sx and asx, n=3419):	sensitivity 52.5%	specificity 99.9%
Sx people (n=827):	sensitivity 64.2%	specificity 100%
Asx people (n=2592):	sensitivity 35.8%	specificity 99.8%

Antigen Test Performance - 4

- In general:
 - Sensitivity better in symptomatic patients
 - Sensitivity not as good with asymptomatic people
 - Confirmatory PCR recommended when antigen test result and clinical picture do not match
 - Examples:
 - person who has symptoms/signs consistent with Covid-19, but has NEGATIVE antigen test, OR
 - person who has NO symptoms/signs consistent with Covid-19, but has a POSITIVE antigen test

Thank you for your attention

If questions, please email me at
brooke.rossheim@vdh.virginia.gov